

## PATENT COOPERATION TREATY

**PCT**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

REC'D 23 AUG 2005

WIPO

PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-040424	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. <b>PCT/KR2004/000947</b>	International filing date (day/month/year) <b>23 APRIL 2004 (23.04.2004)</b>	Priority date (day/month/year) 24 APRIL 2003 (24.04.2003)	
International Patent Classification (IPC) or national classification and IPC <b>IPC7 A61K 31/195</b>			
Applicant <b>AMOREPACIFIC CORPORATION et al</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a.  (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
    - sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b.  (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/>	Box No. I Basis of the report
<input type="checkbox"/>	Box No. II Priority
<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI Certain documents cited
<input type="checkbox"/>	Box No. VII Certain defects in the international application
<input type="checkbox"/>	Box No. VIII Certain observations on the international application

Date of submission of the demand <b>23 NOVEMBER 2004 (23.11.2004)</b>	Date of completion of this report <b>03 AUGUST 2005 (03.08.2005)</b>
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea	Authorized officer <b>KIM, Hee Jin</b>  
Facsimile No. 82-42-472-7140	Telephone No. 82-42-481-5412

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/000947

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
  
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
  - the international application as originally filed/furnished
  - the description:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - the claims:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - the drawings:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
  
3.  The amendments have resulted in the cancellation of:
  - the description, pages \_\_\_\_\_
  - the claims, Nos. \_\_\_\_\_
  - the drawings, sheets \_\_\_\_\_
  - the sequence listing (*specify*) : \_\_\_\_\_
  - any table(s) related to sequence listing (*specify*) : \_\_\_\_\_
  
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages \_\_\_\_\_
  - the claims, Nos. \_\_\_\_\_
  - the drawings, sheets \_\_\_\_\_
  - the sequence listing (*specify*): \_\_\_\_\_
  - any table(s) related to sequence listing (*specify*) : \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)

Claims  
1-5

YES

Claims

NO

Inventive step (IS)

Claims  
1-5

YES

Claims

NO

Industrial applicability (IA)

Claims  
1-5

YES

Claims

NO

**2. Citations and explanations (Rule 70.7)**

The following documents are referred to in this report; the numbering will be adhered to in the rest of the procedure:

D1: Bioscience, biotechnology and biochemistry, 2002, 66(4), pp.711-6

D2: American Journal of physiology. Cell physiology, 2001, 280, pp.C807-813

D3: Journal of Cosmetic Science, 2002, 53(4), pp.209-18

D4: The Journal of veterinary medical science, 1993, 55(5), pp.845-7

D5: International journal of obesity and related metabolic disorders, 2002, 26(11), pp.711-6

D6: International journal of obesity and related metabolic disorders, 2000, 24(2), pp.252-8

The present invention relates to a slimming composition containing theanine and one more component selected from the group comprising caffein, genistein, L-carnitine and catechin.

D1 discloses the effect of dietary powdered green tea(PGT) and theanine on serum cholesterol level and serum triglyceride. According to D1, serum choloesterol and triglyceride levels are significantly suppressed by PGT and theanine.

D2 discloses that genistein inhibits triglyceride accumulation by increasing the lipolysis.

D3 discloses a slimming liposome containing caffeine and L-carnitine.

D4 discloses that carnitine reduces the concentration of triglycerides and total cholesterol in serum and suggests that addition of carnitine may improve the lipid metabolism in obesity.

D5 discloses that tea catechin is beneficial to the suppression of diet-induced obesity by stimulation of hepatic lipid metabolism.

D6 discloses a synergic interaction between catechin and caffeine to augment sympathetic stimulation of adipose tissue thermogenesis.

(Continued on Supplemental Box)

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**Supplemental Box****In case the space in any of the preceding boxes is not sufficient.**

Continuation of:

**1. Novelty**

Since none of these cited documents disclose a slimming composition containing theanine and one more component selected from the group comprising caffeine, genistein, carnitine, and catechin, the subject matter of the present invention is novel over D1 to D6[PCT Article 33(2)].

**2. Inventive Step**

In D1, theanine and PGT are disclosed as suppressing serum cholesterol and triglyceride level. D5 discloses that Catechin is a responsible component for the anti-obesity effect of green tea, and D2,D3, D4 and D6 disclose the anti-obesity effect of genistein, caffeine, and L-carnitine. Accordingly, a person skilled in the art could combine theanine, caffeine, genistein, L-carnitine and catechin as a slimming composition.

Though the present invention describes that the claimed composition comes to have a synergic effect made by adding components having different mechanisms respectively, the composition of the present invention shows less effect than the resultant of the simple combination of theanine, caffeine, genistein and carnitine as shown in figure 5. Therefore, the subject matter of the present invention is considered to lack an inventive step[PCT Article 33(3)].

**3. Industrial Applicability**

The present invention is considered to be industrially applicable.